

OIL AND GAS:

Drilling's safety exemptions and how they got there

Mike Soraghan, E&E reporter

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In 1983, troubled by the high death rate in the oil field, the Occupational Safety and Health Administration set out to impose a set of worker safety rules on drilling companies.

The effort backfired. As OSHA officials ushered the proposal through the process, they agreed to exempt drilling from other new rules on noise protection, machine safety and preventing explosions. Those topics, they said, would be covered in the pending oil and gas rulebook.

But when that proposal died, drilling companies wound up exempt from a suite of basic worker protections.

"It's mind-boggling to me how many safety standards they're exempt from," said Dennis Schmitz, a trainer who leads the MonDaks Safety Network, a group of safety officials from companies in the Bakken Shale region. "What's the culture that creates?"

In the 30 years since the drilling regulations were proposed, the industry's death rate regularly has been among the highest in the United States. Current and former OSHA officials say the exemptions and the absence of the drilling regulations left safety inspectors with fewer tools to police an industry heavy with "unique hazards."

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An investigation of the drilling industry's worker safety record and what it means for those living amid the boom. [Click here](#) to read the series.

And as petroleum production pushes into more populated areas, public health experts say the risks for those who live and work nearby remain poorly understood.

Industry leaders, though, say oil companies take safety seriously.

"We welcome strong regulation," American Petroleum Institute President Jack Gerard said last year after a speech on industry standards. "We resist duplicative, contradictory, confusing regulation. There's an important difference between the two in terms of our ability to operate."

That ability to operate was under threat in late 1983, according to industry leaders at the time.

OSHA, created in 1970, had originally tried to regulate oil and gas under its construction standards. But industry challenged that, and OSHA gave up on the idea after it lost a series of enforcement cases.

Still, fatalities were mounting. Records show there were at least 459 deaths at drilling work sites from 1977 to 1981, an average of 92 a year.

In the early '80s, OSHA began work on a new, separate set of rules, called a "standard," for oil and gas drilling. The rule was formally proposed in late 1983, during President Reagan's administration. In the *Federal Register* on Dec. 28, 1983, the agency laid out a stark rationale linking lack of regulation to worker deaths.

"OSHA believes that the current general industry standards inadequately address the unique hazards encountered during drilling," agency officials wrote. "OSHA believes this lack of adequate regulatory protection has contributed to the high number of deaths and injuries in this industry."

The drilling standard was to cover a wide variety of topics, from blowout preventers to hydraulic fracturing to how many employees had to be trained in first aid.

OSHA said at the time that some oil companies supported the proposal because they wanted a clear and consistent set of rules.

Federal Register / Vol. 48, No. 250 / Wednesday, December 28, 1983 / Proposed Rules 57283

field staff, and several individuals and groups who requested discussion of the proposed rule. The draft was modified to reflect the input OSHA received during this first round of review.

A second draft (dated November, 1982) was circulated for additional comment in December 1982. OSHA again received significant input from interested sources. Interested parties and the issues:

In all, OSHA received input from 7 Associate Contractors, 1 Institute, 1 service, 1 Oklahoma, 1 California, 1 General. I found this input helpful in developing this proposal.

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The selection of the proposed requirements to be added to Part 1910 are based upon (1) the situations where general duty cites (Section 10432) of the Act) have been invoked; for example, using the injury table to breakdown drill pipe (Reference 4); (2) the special situations dictated by the location of operations, for example, medical and first aid requirements and emergency planning; (3) the unusual or specialized equipment, for example, catheters, blowworks, and injury tables; and, (4) the specialized procedures in this industry, for example, cementing, drill stem testing, and wireline operations.

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restraints. That drive led to, among other things, a ramp-

Not every industry has its own specific OSHA standard. 7

OSHA officials said in 1983 that regulating oil and gas under general industry standards worked badly. Current and former OSHA officials say it's still not a good fit.

"The general duty clause is like saying, 'You should drive at a safe speed,'" said R. Dean Wingo, a former assistant regional administrator. "The duty shifts to the officer to show what you were doing was unsafe."

"If you look at OSHA's history, where they developed standards for an industry, it has impacted that industry to improve safety and health," he said.

There are OSHA standards that do cover work at well sites. Oil and gas crews, for example, must follow the standard covering electrical work. But industry is exempt from several standards other industries must follow. Most of those exemptions trace back to accommodations made while the drilling-specific standard was pending.

Some executives conceded that injuries had gone up during a drilling boom that started in 1979. But they said the industry was improving safety on its own.

The industry resistance was effective. OSHA announced in 1985 that it would start over and rewrite the proposed rules. Officials in the Reagan White House said OSHA had understated the costs and said "extensive changes" were needed. After that, interest dwindled. But the proposal remained on the books through the administrations of Presidents George H.W. Bush and Clinton.

Bush and then-Vice President Dick Cheney, both oilmen, led a drive to free domestic energy production from regulatory in drilling on federal lands in the Rocky Mountain West.

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monitor oil and gas work sites using "general industry standards,"
office work to climbing a rig tower in the middle of the night.
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The first exemption was from "hearing conservation" rules that protect workers' hearing at loud sites.

"A combination of factors, including tremendous variation in working conditions, high mobility of operations, extremely high employee turnover rate, and limited accessibility of many worksites convinced OSHA that employees would be better served by developing a standard more specifically tailored to the needs of this industry," the agency wrote at the time.

There were noise protection provisions in the drilling-specific rules, but they fizzled along with the broader proposal.

The same decision was made on machine safety rules called "lockout-tagout" or "LOTO." The rules require machines to be turned off when being serviced so that people, or their limbs, don't get caught in them.

Inspectors can still cite oil and gas companies that don't employ lockout-tagout procedures. The American Petroleum Institute has a standard they're expected to follow.

In practice, though, Schmitz says the exemption creates a Catch-22. The oil companies that own the wells don't develop LOTO procedures for their equipment, because they're exempt. But most of the work is done by contractors. They're supposed to follow lockout-tagout, but frequently there are no procedures for the operators' equipment.

"The folks that are dying out there are contractors," said Schmitz, chairman of the MonDaks safety group of companies operating in Montana and North Dakota, and a regional manager and safety trainer for PEC Safety.

Explosions cause an unusually high number of deaths in the oil field ([EnergyWire](#), Oct. 20). OSHA's standard for preventing industrial explosions is called "Process Safety Management." The standard was enacted in the early 1990s after a series of deadly disasters at refineries and chemical plants. "PSM," as it's called, requires employers to put systems in place for dealing with highly hazardous chemicals.

In the realm of oil and gas, it requires increased scrutiny of hydrogen sulfide, one of the best-known killers in the oil field ([EnergyWire](#), Oct. 21). It also requires employees to follow set procedures before lighting a blowtorch and welding, the cause of many explosions in the oil and gas field.

As with the noise rules and lockout-tagout, drilling was exempted from PSM in anticipation of the industry-specific standard.

After wells are drilled and start flowing with oil or gas, they become production sites that fall under the PSM rules. But OSHA exempted most well sites because companies don't keep employees there, and they're considered "remote."

But remote means separate from a company's other operations, not distant from people. They can be close to subdivisions, houses and businesses and still be exempt.

"Urban drilling, I think, should require the regulatory agencies to take a hard look at public safety," Wingo said. "It really isn't [OSHA's] jurisdiction to address this issue, but no other government agency has stepped up to address these concerns."

Oil and gas is also exempt from OSHA's general standard on exposure to benzene, which can cause cancer. Under that standard, the limit for workers' exposure is 1 part per million. For oil and gas drilling, it is set at 10 ppm.

Oil and gas was exempted because exposure to the chemical was considered more likely to be a problem at refineries, Wingo said, not because of the planned drilling rules.

Some workers at well sites are getting exposed to troubling levels of benzene, according to the National Institute for Occupational Safety and Health. The agency reported last summer its researchers found that well site workers who measure tanks get exposed to levels of benzene higher than NIOSH-recommended limits, and high amounts of volatile organic

Federal safety exemptions for oil and gas drilling

Oil and gas drilling sites are exempt from the following federal safety provisions:

OSHA

- Process safety management of highly hazardous and explosive chemicals.
- Includes provisions on welding and hydrogen sulfide.
- Benzene general exposure limit -- 1 ppm. The limit is 10 ppm at well sites.
- Noise rules -- oil and gas is exempt from monitoring and testing requirements.
- Lockout-tagout (requires that the power be cut to machines being serviced).

EPA

- Clean Air Act rules requiring a risk-management plan for sites with "extremely hazardous substances."
- Clean Water Act spill control provisions requiring chemical storage tank facilities to be fenced and locked.

DOT

- Drivers of vehicles used exclusively to service oil and gas wells are not required to count waiting time at the well site toward their on-duty hours for hours-of-service regulations.

-- Mike Soraghan

compounds (VOCs). And there are indications that several Bakken Shale workers might have been killed by VOCs at well sites ([*EnergyWire*](#), Oct. 27).

"The petroleum people have a very powerful lobby," said Mark Kaszniak, senior recommendation specialist with the U.S. Chemical Safety Board, an independent agency that has investigated numerous oil and gas accidents. "And they are particularly powerful in making sure the regulators give them exemptions in 'upstream' areas where they're getting the oil and gas directly out of the ground."

The oil and gas industry ranks sixth among industries for the amount it spends lobbying the federal government, according to OpenSecrets.org. Since 1998, companies have spent more than \$1.6 billion to lobby the federal government.

'You have a higher burden to prove'

Eric Brooks navigates this maze of rules and exemptions every day.

From his neatly organized desk in downtown Bismarck, N.D., adorned in front with the Labor Department seal, he oversees workplace safety in one of the most dangerous places in the country for workers: the Bakken Shale.

Once an inspector here, he is now OSHA's area director for North and South Dakota. He has watched the shale drilling boom transform rural North Dakota into a major oil producer, boost employment and double the state's rate of worker deaths.

North Dakota had the highest fatality rate in the nation in 2012 (17.7 per 100,000 workers), according to an AFL-CIO report. That was five times the national average. The death rate for North Dakota's oil and gas production sector was 104 per 100,000 workers, more than 30 times the country's average fatality rate.

As the deaths mounted, OSHA's presence in the Dakotas shrank. In 2008, OSHA had seven inspectors in the Dakotas. Retirements, a federal pay freeze and soaring housing costs across the state combined to erode manpower. In 2012, Brooks said, there were four full-time inspectors and a trainee.

"That 2011 and 2012 was a trying time for everyone," Brooks said. "I think we're past that. I hope we're past that."

The number of inspectors has since risen to nine, and the agency is bringing in rotating teams for special enforcement sweeps. Fatalities declined in North Dakota last year.

But with the exemptions and the lack of a specialized standard for drilling, the inspectors Brooks does have face a host of hurdles.

Using the general duty clause, he said, makes it "exponentially" harder to bring a case.

Inspectors can't cite minor violations under general duty. Citations must be for "serious" hazards that would likely result in death or serious physical harm. In some cases, an inspector must get a Labor Department attorney to sign off before issuing a general duty citation. And for that attorney, general duty cases are more difficult to resolve, because the "serious" violations can't be bargained down in a settlement.

"It does take a lot more," Brooks said. "You have a higher burden to prove."

Still, in a safety sweep across the Bakken in the spring of 2013, inspectors cited violations in 50 percent of the wells they visited. Another group of inspectors, called a "health response team," is in the Bakken this week, Brooks said, "conducting focused inspections" at oil and gas sites.

But he said the heavy use of "general duty" violations is an indication the rules aren't keeping up, and haven't been for a long time.

Brooks keeps a yellowing copy of the *Federal Register* from Dec. 28, 1983, on the corner of his desk. He picks it up and reads the assessment of the drilling industry and OSHA's role in regulating it.

"OSHA believes that the current general industry standards inadequately address the unique hazards encountered during drilling," he says. "OSHA believes this lack of adequate regulatory protection has contributed to the high number of deaths and injuries in this industry." And he pauses.

"That's a great quote," Brooks says, "that still rings true today."

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